LISTING OF THE CLAIMS

This listing of claims, amended as indicated below, replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A hybrid module comprising:

an electro-optical component for transmitting or receiving energy;

an electronic component for amplifying and transferring an electric signal to ~~an external~~ said electro-optical component;

a planar light wave circuit formed of a glass layer for providing an opto-electronic signal communication path; and

~~at least one~~ an optical waveguide embedded in and integrally formed with said glass layer forming said planar light wave circuit for propagating said opto-electronic signal communication[[;]].

2. (Currently Amended) A ~~system~~ hybrid module as in claim 1, further comprising an optical fiber plug [[or]] connector.

3. (Currently Amended) A ~~system~~ hybrid module as in claim 1, further comprising an embedded folding ~~micro-mirror~~ micro-mirror embedded in said planar light wave circuit for directing energy transfer between said electro-optical component and said ~~at least one~~ optical waveguide.

4. (Currently Amended) A ~~system~~ hybrid module as in claim 1, wherein said waveguide comprises a tapering portion.

5. (Currently Amended) A ~~system~~ hybrid module as in claim 1, wherein said electro-optical component and said electronic component are enclosed in a heat sink encapsulation.

6. (Currently Amended) A ~~system~~ hybrid module as in claim 5, wherein said heat sink encapsulation comprises a metal cap.

7. (Currently Amended) A ~~system~~ hybrid module as in claim 5, wherein said electro-optical component is coupled to said electronic component.

8. (Currently Amended) ~~system~~ hybrid module as in claim [[5]] 3, wherein said electro-optical component is coupled to said ~~plurality of waveguides~~ waveguide through said embedded folding micro-mirror.

9. (Currently Amended) A ~~system~~ hybrid module as in claim 5, wherein said electro-optical component comprises a current amplifier for amplifying weak signals.

10. (Currently Amended) A method comprising:

fabricating a glass waveguide ~~glass wafer~~ support;

producing a support glass wafer;

creating an optical chip by attaching said support glass wafer to said glass waveguide support ~~glass~~; and

creating an electro-optical module by attaching electro-optical components to said glass waveguide support of said optical chip.

11. (Currently Amended) A method as in claim 10, wherein said fabricating said glass waveguide ~~glass wafer~~ support further comprises:

creating a plurality of waveguides using ion exchange technology in a planar lightwave circuit glass layer;

printing electric lines and contacts on said planar lightwave circuit glass layer;

dicing a slot in said planar lightwave circuit glass layer; and

filling said slot in said planar lightwave circuit glass layer with a metal.

12. (Currently Amended) A method as in claim 10, wherein said producing said glass support ~~glass~~ further comprises:

creating a plurality of vias on a glass substrate; coating said vias with a conductive material; and

printing electrical lines and contacts on both sides of said ~~waveguide~~ glass ~~wafer~~ substrate.

13. (Currently Amended) A method as in claim 12, wherein said creating said plurality of vias ~~comprises~~ are created by wet or dry etching.

14. (Currently Amended) A method as in claim [[10]] 11, wherein said creating said optical chip further comprises:

[[D]]dicing said waveguide glass ~~wafer~~ support at one side [[at]] to be connected to a fiber optic connector ~~side~~ to create double bars;

[[P]]polishing said fiber optic connector side; and

[[A]]attaching pig-tail fibers at an end of each of said plurality of waveguides.

15. (Currently Amended) A method as in claim 10, wherein said ~~attaching said~~ electro-optical components are attached to said optical chip ~~comprises~~ using an active alignment beam.

16. (Currently Amended) A method as in claim [[10]] 14, wherein said creating said electro-optical module further comprises:

[[E]]encapsulating said electro-optical components and electronic components with a thermal conductive polymer; and

[[D]]dicing said double bars to create said separate ~~said~~ electro-optical modules.

17. (New) A hybrid module as in claim 1, wherein said electro-optical component is directly mounted on said glass layer forming said planar light wave circuit.

18. (New) A hybrid module as in claim 1, wherein said at least one optical waveguide is formed as a region of ion exchange within said glass waveguide support.